FEDOROVA, L.N.

AID P - 1879

Subject : USSR/Meteorology and Hydrology

Card 1/1 Pub.71-a - 22/26

Author : Fedorova, L. N.

Title : Ionosphere and its importance for radio communication

Periodical : Met. i gidro., no.2, 57-58, 1955

Abstract : The article is an answer to a letter from members of a kolkhoz and gives a historical review and explanation of the ionosphere, its layers, short waves, critical frequency, seasonal variations, etc.

Institution : Scientific Research Institute of Terrestrial Magnestism

Submitted : No date

ROZOV, B.S.; MEL'NIKOV, S.M., nauchn. red.; FEDOROVA, L.N., red.; SHMAKOVA, T.M., tekhn. red.

[Industry's requirements as to the quality of mineral raw materials] Trebovaniia promyshlennosti k kachestvu mineral'nogo syr'ia; spravochnik dlia geologov. Izd.2., perer. Moskva, Gosgeoltekhizdat. No.17.[Antimony] Sur'ma. 1963. 42 p. (MIRA 16:12)

1. Moscow. Vsesoyuznyy nauchno-issledovatel'skiy institut mineral'nogo syr'ya.

(Antimony)

ALEKSEYEV, F.A., prof., red.; MOGILEVSKIY, G.A., kand. geol.-miner. nauk, red.; FEDOROVA, L.N., ved. red.

[Direct methods for prospecting for oil and gas] Priamye metody poiskov nefti i gaza. Moskva, Nedra, 1964. 129 p. (MIRA 17:12)

FEDOROVA, L.P.

Influence of Soviet trade on industrial production of consumers' goods. Vest. LGU 12 no.23:25-34 '57. (MIRA 11:1)
(Commercial products) (Service industries)

YEGOROVA, N.G.; KUZNETSOVA, V.Ye.; KUPRIKHIN, V.I.; MARTYNOV, B.P.; RUGAYEVA, V.A.; FEDOROVA, L.P.; CHUYAN, K.I.[deceased]; SHTRUK, G.G., inzh., red.; GORDEYEVA, L.P., tekhn.red.

[General engineering time norms for cold forging] Obshche-mashinostroitel'nye normativy vremeni na kholodnuiu shtampovku. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1959. 151 p. (MIRA 13:7)

1. Moscow. Nauchno-issledovatel'skiy institut truda. TSentral'-noye byuro promyshlennykh normativov po trudu.
(Forging)

ACCESSION NR: AR4034709 S/0285/64/000/003/0018/0019

SOURCE: Referativny*y zhurnal. Turbostroyeniye. Otdel'ny*y vy*pusk, Abs. 3.49.129

AUTHOR: Rumyantsev, A. P., Fedorova, L. P.

TITLE: Control of turbine blades by the ultrasonic immersion method

CITED SOURCE: Tr. Khar'kovsk. aviats. in-ta, vy*p. 22, 1963, 176-182

TOPIC TAGS: turbine, machining, ultrasonic flow detector, turbine blade, UZD-7M flaw detector, flaw detection, flaw detector

TRANSLATION: A method has been developed for the ultrasonic immersion control of parts of complex shape (turbine blades) and continuous automatic control was achieved. The sensitivity of the method makes it possible to observe defects of any type (any discontinuity in the metal) with minimum equivalent area of reflection, equal to 1 mm^2. An original device to burnish the profile of the blade with a gauge has been designed and built which makes it possible to keep a constant angle of inclination between the gauge and the surface of the blade throughout the entire control period. An electronic attachment to an ultrasonic flaw detector UZD-7M has been designed and constructed which makes it possible to automatically record the

Card 1/2

ACCESSION NR: AR4034709

results of the control. This method made it possible to study more than 50 defective cross sections in turbine blades. All the basic types of defects typical of turbine blades were turned up in the study.

DATE ACQ: 09Apr64 SUB CODE: PR ENCL: 00

Card 2/2

GAVRANEK, V.V., inzh.; FEDOROVA, L.R., inzh.

Ultrasonic testing of the structure of stamped articles.
Mashinostroenie no.4:66-68 Jl-Ag '64. (MIRA 17:10)

L 37140-66 EWT(d)/EWT(l)/EWT(m)/EWP(w)/EWP(v)/T/EWP(t)/ETI/EWP(k)/EWP(l) IJP(c)
ACC NR: AP6014417 (N) JD/HW/EM/JT SOURCE CODE: UR/0381/65/000/005/0003/0007

AUTHORS: Rumyantsev, A. P.; Fedorova, L. P.; Kravchenko, N. A.; Tararoyeva, L. D.; Krichevskaya, I. V.

ORG: none

TITLE: Ultrasonic control of macrodefects and local structural inhomogeneities in turbine blades

SOURCE: Defektoskopiya, no. 5, 1965, 3-7

TOPIC TAGS: turbine blade, [redacted] metallurgic testing machine, metal test, ultrasonics

ABSTRACT: An immersion type ultrasonic installation for the detection of structural defects in turbine blades, developed by the Khar'kov Aviation Institute (Khar'kovskiy aviatsionnyy institut) and the Khar'kov Polytechnic Institute (Khar'kovskiy politekhnicheskiy institut) for the Khar'kov Turbogenerator Factory im. S. M. Kirov (Khar'kovskiy turbogeneratornyy zavod), is described. The device is capable of detecting defects whose effective reflective area is larger than 3 mm^2. The installation consists of a water bath, ultrasonic generator of 2.5 megacycles, receiver, and associated electronics for converting the sound signals into electric impulses and displaying the latter on an oscilloscope. The intensity of the transmitted sound was determined by means of an optical installation. A schematic of the control path, associated electronics, and recording procedure for the determination of defects along

UDC: 620.179.16

Card 1/2

ACC NR: AP6014417

a turbine blade cross section is presented (see Fig. 1).

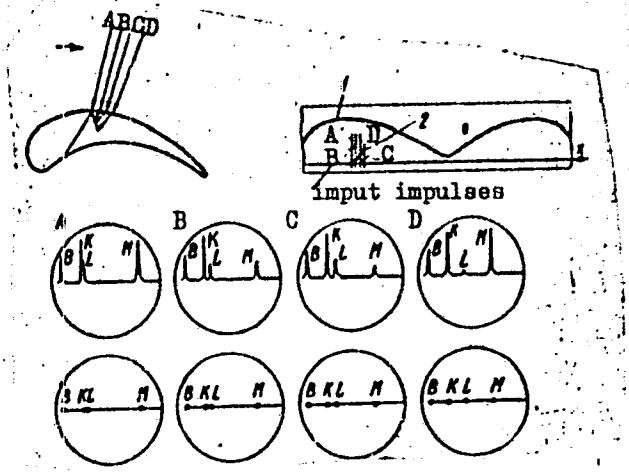

Fig. 1. Schematic for the oscillographic recording of defects in the cross section of turbine blades.

A photograph of the optical apparatus for the measurement of the intensity of the transmitted sonic beam is also presented. It is concluded that the device is capable of scanning a turbine vane cross section in about 3--5 minutes. Orig. art. has: 4 figures.

Nondestructive testing

SUB CODE: 11/0/ SUBM DATE: 26Jun65/ ORIG REF: 002

Card 2/2 af

L 16749-66 EWT(d)/EWT(l)/EWT(m)/EWP(c)/EWA(d)/EWP(v)/T/EWP(t)/EWP(k)/EWP(l)/EWA(h)/ETC
ACC NR: AP6004127 IJP(c) JD SOURCE CODE: UR/0420/65/000/001/0063/0069

AUTHORS: Gavranek, V. V.; Fedorova, L. R.

ORG: Kharkov Aviation Institute (Khar'kovskiy aviatsionnyy institut)

TITLE: Determining grain size and orientation in drop-forged products

SOURCE: Kharkov. Aviatsionnyy institut. Samoletostroyeniye i tekhnika vozdushnogo flota, no. 1, 1965, 63-69

TOPIC TAGS: grain size, grain structure, ultrasonic inspection, steel, alloy, nondestructive test / D16 alloy

ABSTRACT: A method of nondestructive inspection of the structure of products by the increased-power ultrasonic method is proposed. The method permits visual observation of changes in the attenuation factor as well as recording of the results of monitoring on a photographic plate. Apparatus for the method is described (see Fig. 1). The frequency intervals of ultrasonic oscillations in which (with a small frequency drift) the attenuation factor changes at a maximum rate were established experimentally. Ultrasonic photographs were taken at 2.8 and 2.9 Mc. The accuracy of the method in determining grain size is 1—2 points

Card 1/3

L 16749-66

ACC NR: AP6004127

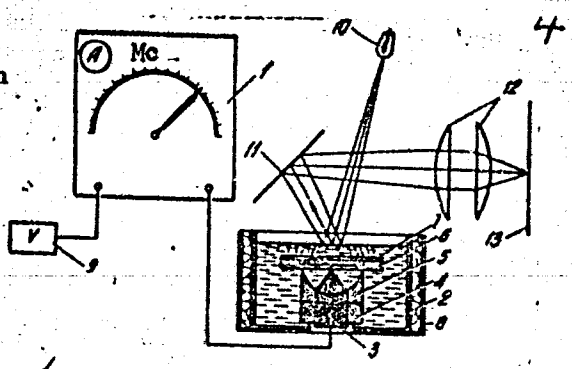

Fig. 1. Apparatus for determining grain size and orientation in metal of finished products:
1 - r-f oscillator; 2 - tank; 3 - radiator; 4 - part being checked; 5 - lens; 6 - diaphragm; 7 - photoplate; 8 - cooling jacket with ice; 9 - voltmeter; 10 - point light source; 11 - mirror; 12 - objective; 13 - screen.

on the grain-size scale. Specimens of D16 Duraluminum were studied (see Fig. 2).

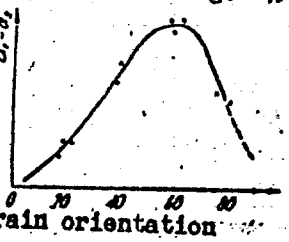

Fig. 2. Graph of difference between ultrasound attenuation factors along and across grain vs degree of grain orientation of structure.

Card 2/3

L 16749-66
ACC NR: AP6004127

In the presence of grain in a metal, the attenuation factor of ultrasound decreases and takes on an anisotropic nature along and across the grain. Orig. art. has: 1 diagram, 1 graph, 1 table, and 2 photographs.

SUB CODE: /3 SUBM DATE: none/ ORIG REF: 003/ OTH REF: 001

aluminum
21

Card 3/3 vmb

RUMYANTSEV, A.P.; FEDOROVA, L.R.; KRAVCHENKO, N.A.; TARAROYEVA, L.D.
KRICHEVSKAYA, I.V.

Ultrasonic control of macrodefects and local structural inhomogeneities in turbine blades. Defektoskopiia no. 5: 3-7 '65 (MIRA 19:11)

KOZHIN, S.A.; FEDOROVA, L.N.

Composition of the essential oil from Sium latifolium L. Zhur. ob. khim. 34 no.10:3493-3496 O '64. (MIRA 17:11)

1. Leningradskiy gosudarstvennyy universitet.

ACC NR: AR6029513 SOURCE CODE: UR/0137/66/000/006/I084/I084

AUTHOR: Gavranek, V. V.; Fedorova, L. R.

TITLE: A study of the effect of alloy structure on the damping of ultrasonic oscillations

SOURCE: Ref. zh. Metallurgiya, Abs. 6I591

REF SOURCE: Vestn. Khar'kovsk. politekhn. in-ta, no. 5(53), 1965, 20-26

TOPIC TAGS: ultrasonic property, pearlite steel, martensite steel, austenite steel / ST3 steel, KhVG steel, ST20 steel, U8 steel, U12 steel, EI256 steel, EI612 steel

TRANSLATION: A new method is proposed for studying metallic structures by means of ultrasonic oscillations, using oscillations with a final amplitude of about 10^{-8}-10^{-4} mm. Thereby, the possibility of measuring the amplitude dependence of damping (γ) was allowed, as well as of analyzing the localized structure in small volumes. The grain size dependence of γ was studied for pearlitic, martensitic and austenitic grades of steel: ST3, ST20, U8, U12, KhVG, EI256, EI612, as well as armco iron (ferritic structure). All steels had regions of maximal γ growth rate, corresponding to the relation $\lambda = 15\,\overline{D}$, where λ is the wavelength and $\overline{D}$ is the average grain diameter; this relationship was the same for all of the steels. On samples of duraluminum D16, the nature of the γ change was studied as a function of the increase in the percentage of

UDC: 669.017.620.1:539.67

Card 1/2

ACC NR: AR6029513

texture: γ decreased with an increase in texture and acquired an anisotropy in the directions parallel and perpendicular to the texture axis.

SUB CODE: 11,13

Card 2/2

USSR/ Chemistry - Organic chemistry

Card 1/1 Pub. 40 - 23/26

Authors : Kolesnikov, G. S.; Korshak, V. V.; and Fedorova, L. S.

Title : From the field of high molecular compounds. Part 71. Polycondensation of 1,2-dichloroethane with chlorobenzene in the presence of $AlCl_3$.

Periodical : Izv. AN SSSR. Otd. khim. nauk 2, 359 - 364, Mar-Apr 1955

Abstract : The process of polycondensation of 1,2-dichloroethane with chlorobenzene was investigated and the basic laws governing this condensation process were established. It was found that the introduction of a Cl atom into the benzene ring hampers the formation of the trimeric polycondensation products. The structures of reaction products obtained over $AlCl_3$ contacts are described. Seven references: 5 USSR, 1 USA and 1 German (1916-1955). Tables; graphs.

Institution : Acad. of Sc., USSR, The N. D. Zelinskiy Inst. of Organ. Chem.

Submitted : January 27, 1954

USSR/Analytical Chemistry - Analysis of Inorganic Substances, G-2

Abst Journal: Referat Zhur - Khimiya, No 1, 1957, 1224

Author: Korenman, I. M., Potemkina, V. J., and Fedorova, L. S.

Institution: None

Title: Chromotropic Azodyes as Reagents for Trivalent Thallium

Original Periodical: Zh. analit. khimii, 1956, Vol 11, No 3, 307-309 (with a summary in English)

Abstract: The possibility of utilizing azo-derivatives of chromotropic acid for the determination of Tl(III). It is shown that these reagents give color reactions with Tl(III) in weakly acid medium (CH_3COOH). N-dimethylanilineazochromotropic acid was used in the determination of 1-10 γml Tl(III) in HCl in the presence of a 100-1,000-fold amount of Al, a 100-fold amount of Fe(III), a 300-fold amount of Mg, and a 700-fold amount of Ca. The salts of Tl(I) do not give such color reactions.

Card 1/1

FEDOROVA, L.S.

KOLESNIKOV, G.S.; FEDOROVA, L.S.

Polymerization of acrylonitrile in presence of tributyl boron. Izv.AN SSSR. Otd. khim. nauk no.2:236-237 F '57. (MLRA 10:4)

1. Institut elementoorganicheskikh soyedineniy Akademii nauk SSSR.
(Acrylonitrile) (Polymerization)

AUTHORS: Korshak, V. V., Kolesnikov, G. S. Fedorova, L. S. 62-58-3-16/30

TITLE: Synthesis of Polyarylene Alkyls (Sintez poliarilenalkilov) Communication 3. The Polycondensation of 1,2-Dichlorethane With Fluorobenzene (Soobshcheniye 3. Polikondenzatsiya 1,2-dikhloretana s ftorobenzolom)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Otdeleniye Khimicheskikh Nauk, 1958, Nr 3, pp. 353-356 (USSR)

ABSTRACT: During the investigation of the polycondensation of aromatic hydrocarbons with dihaloidalkanes in the presence of aluminum chloride the authors discovered that the presence of a substituent in the benzene nucleus (e. g. of the chlorine atom or methyl group) renders the formation of three-dimensional polycondensation products difficult. For the purpose of determining the influence of the magnitude of a substituent upon the tendency toward the formation of three-dimensional products the authors investigated the polycondensation of 1,2-dichlorethane with fluorobenzene in the presence of aluminum chloride. For the purpose of determining the influence of the correlation of the reacting substances upon

Card 1/2

Synthesis of Polyarylene Alkyls. 62-58-3-16/30
Communication 3. The Polycondensation of 1,2-Dichlorethane With Fluorobenzene

the course of the condensation process a whole number of experiments was performed. The method of investigation was the same as in earlier performed investigations (reference 3) with the only difference that after the distillation of the solvent difluorodiphenylethane and 2,4-bis-[β-(4-fluorophenyl)--ethyl-]-fluorobenzene were also distilled in vacuum. For this see tables 1 and 2. The authors further determined: the structure of the basic member of the product of polycondensation of fluorobenzene with 1,2-dichlorethane. The following compounds were synthesized for the first time: 2,4-dimethyl-fluorobenzene, 2,4-fluorobenzene-dicarboxylic acid and the dimethyl ester of this acid. There are 2 tables and 4 references, all of which are Soviet.

ASSOCIATION: Institut elementoorganicheskikh soyedineniy Akademii nauk SSSR (Institute for Elemental-organic Compounds AS USSR)

SUBMITTED: October 9, 1956

Card 2/2

AUTHORS: Kolesnikov, G. S., Fedorova, L. S., Tsetlin, B. L., Klimentova, N. V. SOV/62-58-7-15/26

TITLE: Carbon Chain Polymers and Copolymers (Karbotsepnyye polimery i sopolimery) Communication 5. The Synthesis and the Properties of the Copolymers of Acrylonitryl and Methyl Methacrylate (Soobshcheniye 5. Sintez i svoystva sopolimerov akrilonitrila i metilmetakrilata)

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye khimicheskikh nauk, 1958, Nr 7, pp 886 - 890 (USSR)

ABSTRACT: The present paper deals with the explanation of the influence of the correlation of the monomers (in the initial mixture) on the composition (structure) of the copolymer at a relatively high rate of reaction. The authors further deal with the investigation of the dependence of some properties of the copolymers on their structure. The authors produced acrylonitryle and methyl methacrylate copolymers by means of an emulsion at a high rate of reaction. Furthermore the structure of these copolymers was determined. It was found that minimum values of the characteristic viscosity of the copolymers on the one hand, and of the temperatures of the passage into highly elastic and more liquid

Card 1/2

Carbon Chain Polymers and Copolymers. Communication 5: SOV/62-58-7-15/26
The Synthesis and the Properties of the Copolymers of Acrylonitryl and Methyl Methacrylate

state on the other hand correspond to copolymers of different structure. It was also found that methyl methacrylate copolymers with acrylonitryle (up to 30 molar % of acrylonitryle) approach poly methyl methacrylate very closely as regards its stability. There are 3 figures, 2 tables, and 11 references, 2 of which are Soviet.

ASSOCIATION: Institut elementoorganicheskikh soyedineniy Akademii nauk SSSR (Institute of Elemental-organic Compounds, AS USSR)

SUBMITTED: December 30, 1956

Card 2/2

AUTHORS: Kolesnikov, G. S., Fedorova, L. S. SOV/62-58-7-23/26

TITLE: On the Polymerization Mechanism of Acrylonitrile in the Presence of Boron Tributyl (O mekhanizme polimerizatsii akrilonitrila v prisutstvii tributilbora)

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye khimicheskikh nauk, 1958, Nr 7, p 906 (USSR)

ABSTRACT: Boron alkyls are a new type of catalysts in the polymerization of unsaturated compounds (Refs 1-5). The more accurate determination of the catalytic efficiency of the boron alkyls is of special interest. The authors of the present article found in the investigation of the process of the emulsion polymerization of acrylonitrile in the presence of boron tributyl that in the case of an absence of oxygen no polymerization of acrylonitrile takes place (at 20 and 50°). However, the polymerization using acrylonitrile or water (without oxygen extraction) proceeds easily. The polymerization also takes place easily if no air is displaced from the ampoule by means of nitrogen. The poly-acrylo nitrile yield reaches 60%. The release of the acrylonitrile polymerization by means of boron tributyl includes the intermediate stage (the formation

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SOV/62-58-7-23/26

On the Polymerization Mechanism of Acrylonitrile in the Presence of Boron Tributyl

of products of the interaction of boron tributyl with oxygen). The already earlier observed small yield of poly-acrylonitrile in the polymerization of acrylonitrile (in the presence of boron tributyl in toluene) can be explained by the fact that the polymerization was carried out in the nitrogen atmosphere free from oxygen. The monomer and the solvent were distilled prior to the polymerization; this effected the removal of the greatest part of the oxygen dissolved in them. There are 6 references, 4 of which are Soviet.

ASSOCIATION: Institut elementoorganicheskikh soyedineniy Akademii nauk SSSR (Institute of Elemental-organic Compounds, AS USSR)

SUBMITTED: April 29, 1958

Card 2/2

KOLESNIKOV, G.S.; FEDOROVA, L.S.

Synthesis of polyarylenealkyls. Report No.10: Destruction of poly(chlorophenylene)ethyl by chlrobenzene and benzene. Izv. AN SSSR, Otd.khim.nauk no.1:144-147 Ja '59. (MIRA 12:4)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.
(Ethane) (Benzene)

KOLESNIKOV, G.S.; RODIONOVA, Ye.F.; [redacted], L.S.

Carbon chain polymer and copolymers. Part 11: Synthesis, polymerization, and copolymerization of esters of vinylphosphinic acid. Vysokom. soed. 1 no.3:367-372 Mr '59. (MIRA 12:10)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.
(Phosphinic acid)

KOLESNIKOV, G.S.; FEDOROVA, L.S.

Carbochain polymers and copolymers. Part 12: Emulsion polymerization of vinyl compounds in the presence of tributylborine. Vysokom.soed. 1 no.8:1266-1270 Ag '59. (MIRA 13:2)

(Polymerization) (Vinyl compounds) (Borine)

5(3)

AUTHORS: Kolesnikov, G. S., Fedorova, L. S., Tsetlin, B. L., Klimentova, N. V.

SOV/62-59-4-27/42

TITLE: Carbon Chain Polymers and Copolymers (Karbotsepnyye polimery i sopolimery). Communication 9. Synthesis and Properties of Copolymers of Vinylidene Chloride With Acrylonitrile and Methylmethacrylate (Soobshcheniye 9. Sintez i svoystva sopolimerov khloristogo vinilidena s akrilonitrilom i metilmetakrilatom)

PERIODICAL: Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, 1959, Nr 4, pp 731-735 (USSR)

ABSTRACT: In the present work an attempt was made of finding out the effect of the composition of copolymers of vinylidene chloride with acrylonitrile and methylmethacrylate on their transition temperatures in various physical states and on their solubility in organic solvents. In the synthesis of the copolymers and in the investigation of their properties the same methods were used as in the investigation of the copolymers of acrylonitrile with methylmethacrylate (Ref 16). The results obtained in the investigation of the composition and properties of the copolymers of the system vinylidenechloride-acrylonitrile

are shown in table 1. The conditions were similar in all cases. The only change was in the ratio of the monomers in the initial solution. The values of the vitrification temperature (T_{st}) and the flowing temperature (T_t) of the copolymers were determined from the thermomechanical compression curves (Fig 1). Table 1 shows that a higher vinylidene chloride-monomer content in the initial solution reduces the yield of the copolymer. Of all copolymers obtained only that with 44.1 mol% vinylidene chloride content is soluble in acetone. This copolymer has the least viscosity and the lowest T_{st}. Upon transition from the homopolymer of vinylidene chloride to copolymers with already smaller quantities of acrylonitrile the thermomechanic curves assume the form which is characteristic of normal thermomechanic curves of linear amorphous polymers. The values T_{st} and T_t decrease rapidly. Table 2 shows the investigation results of the system vinylidene chloride-methylmethacrylate. Figure 2 shows the thermomechanic curves for the samples of

Carbon Chain Polymers and Copolymers. SOV/62-59-4-27/42
Communication 9. Synthesis and Properties of Copolymers of Vinylidene Chloride With Acrylonitrile and Methylmethacrylate

this system. All copolymers are easily soluble in dichloroethane. Copolymers with a content of 20 mol% vinylidene chloride are soluble in acetone. With a higher vinylidene chloride content they become insoluble in acetone. Copolymers with a high vinylidene chloride content have a low T_{st} and T_t just as in the system vinylidene chloride-acrylonitrile. Numerous copolymers of this system have a comparatively low T_t and sufficiently high T_{st}. For this reason it might be possible to manufacture these copolymers by means of casting methods. There are 2 figures, 2 tables, and 30 references, 1 of which is Soviet.

ASSOCIATION: Institut elementoorganicheskikh soyedineniy Akademii nauk SSSR (Institute of Elemental-organic Compounds of the Academy of Sciences, USSR)

SUBMITTED: July 18, 1957
Card 3/3

KOLESHIKOV, G.S.; RODIONOVA, Ye.F.; FEDOROVA, L.S.; GAVRIKOVA, L.A.

Carbochain polymers and copolymers. Part 27: Polymerization and copolymerization of di-n-butyl vinylphosphonate. Vysokom. soed. 2 no.9: 1432-1437 S '60. (MIRA 13:9)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.
(Polymerization)

FEDOROVA, L. S.

Cand Chem Sci - (diss) "Study in the field of poly-(halogenpheny-lene)-ethyls." Moscow, Pub. Academy of Sciences USSR, 1961. 10 pp; (Academy of Sciences USSR, Inst of Petrochemical Synthesis); 220 copies; free; (KL, 10-61 sup, 208)

KORSHAK, V.V.; FEDORODA, L.S.; KOLESNIKOV, G.S.

Synthesis of polyarylenealkyls. Part 11: Chemical properties of poly(halophenylene)ethyls. Vysokom.soed. 3 no.11:1644-1649 N '61. (MIRA 14:11)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.
(Polymers)

KORSHAK, V.V.; FEDOROVA, L.S.; KOLESNIKOV, G.S.

Synthesis of polyarylenealkyls. Part 12: Polycondensation of 1,2-dichloroethane with bromobenzene. Vysokom.soed. 3 no.11:1650-1654 N '61. (MIRA 14:11)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.
(Ethane) (Benzene) (Polymers)

34500
S/190/62/004/003/020/023
B124/B101

15.8150
11.2210

AUTHORS: Rodionova, Ye. F., Kolesnikov, G. S., Fedorova, L. S., Gavrikova, L. A.

TITLE: Carbon chain polymers and copolymers. XXXVII. Polymerization and copolymerization of diphenyl vinylphosphinate

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 4, no. 3, 1962, 448-451

TEXT: The results of a study performed on the polymerization of diphenyl vinylphosphinate (DVP) and its copolymerization with styrene and acrylonitrile are presented. DVP was mass-polymerized in nitrogen at 60°C in sealed tubes in the presence of one of the following initiators: benzoyl peroxide, tert-butyl hydroperoxide, and azoisobutyrodinitrile. DVP was further copolymerized with styrene in mass and in emulsion. With increasing DVP content in the starting monomer mixture, the yield and the intrinsic viscosity of the resulting copolymer decrease. When a molar ratio of DVP and styrene equal to 25:75 is used, 2 molar % of the initiator are added, and the mixture is copolymerized at 72.5°C, a yield of 75% of the copolymer is attained after 7 - 8 hours which remains practically unchanged

Card 1/3

Carbon chain polymers ...

in the further course of copolymerization. When temperature is lowered from 72.5 to 60°C, the intrinsic viscosity is raised to its double value; lowering of the concentration of the initiator has an analogous effect. When the mentioned two monomers were copolymerized in emulsion at 50°C in nitrogen and in the presence of ammonium persulfate for 36 hours, a copolymer containing about 2% of phosphorus, with an intrinsic viscosity of 1,67 and a molecular weight of 113,000 was obtained. When DVP is copolymerized with o-methylstyrene under conditions similar to those used with styrene, the yield of the copolymer is about the same as with styrene with the phosphorus content being somewhat higher. The vitrification point of the copolymer with o-methylstyrene is somewhat higher than that of the copolymer with styrene. The intrinsic viscosity of a 0.5% solution of the DVP-acrylonitrile copolymer in dimethyl formamide decreases with increasing content of the phosphorus-containing component; the yield of the copolymer after 8 hours of copolymerization varies but little with the composition of the starting mixture in the range of DVP concentrations studied. In all cases, the copolymer contains less of the phosphorus-containing component than the starting mixture. Thanks are due to S. A. Pavlova for the determination of the molecular weight. There are 2 figures, 6 tables, and 4 Soviet

Card 2/3

Carbon chain polymers ... S/190/62/004/003/020/023
B124/B101

references.

ASSOCIATION: Institut elementoorganicheskikh soyedineniy AN SSSR (Institute of Elemental Organic Compounds of the AS USSR)

SUBMITTED: March 14, 1961

Card 3/3

FEDOROVA, L. S.

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PHASE I BOOK EXPLOITATION SOV/6034

Konferentsiya po khimii i primeneniyu fosfororganicheskikh soyedineniy. 2d, Kazan', 1959.

Khimiya i primeneniye fosfororganicheskikh soyedineniy; trudy (Chemistry and Use of Organophosphorus Compounds; Conference Transactions) Moscow, Izd-vo AN SSSR, 1962. 630 p. Errata slip inserted. 2800 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Kazanskiy filial.

Resp. Ed.: A. Ye. Arbuzov, Academician; Ed. of Publishing House: L. S. Povarov; Tech. Ed.: S. G. Tikhomirova.

PURPOSE: This collection of conference transactions is intended for chemists, process engineers, physiologists, pharmacists, physicians, veterinarians, and agricultural scientists.

COVERAGE: The transactions include the full texts of most of the scientific papers presented at the Second Conference on the Chemistry and Use of

Card 1/[illegible]

Chemistry and the Use of Organophosphorus (Cont.) SOV/6034

Organophosphorus Compounds held at Kazan' from 2 Nov through 1 Dec 1959. The material is divided into three sections: Chemistry, containing 67 articles; Physiological Activity of Organophosphorus Compounds, containing 26 articles; and Plant Protection, containing 12 articles. The reports reflect the strong interest of Soviet scientists in the chemistry and application of organophosphorus compounds. References accompany individual reports. Short summaries of some of the listed reports have been made and are given below.

TABLE OF CONTENTS:[Abridged]:

Card 2/4

RODIONOVA, Ye.F.; KOLESNIKOV, G.S.; FEDOROVA, L.S.; GAVRIKOVA, L.A.

Carbochain polymers and copolymers. Part 37: Polymerization and copolymerization of diphenyl vinylphosphinate. Vysokom. soed. 4 no.3:448-451 Mr '62. (MIRA 15:3)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.
(Phosphinic acid) (Polymerization)

KOLESNIKOV, G.S.; RODIONOVA, Ye.F.; FEDOROVA, L.S.; MEDVED', T.Ya.; KABACHNIK, M.I.

Carbochain polymers and copolymers. Part 41: Synthesis, polymerization, and copolymerization of vinylphosphinic amides. Vysokom.soed. 4 no.9:1385-1389 S '62. (MIRA 15:11)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.
(Phosphinic amide)
(Polymerization)

S/081/62/000/023/118/120
B117/B186

AUTHORS: Kolesnikov, G. S., Rodionova, Ye. F., Fedorova, L. S.

TITLE: Synthesis, polymerization, and copolymerization of vinyl phosphinic esters

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 23, 1962, 816, abstract 23R57 (In collection: Khimiya i primeneniye fosfororganich. soyedineniy. M., AN SSSR, 1962, 255 - 262)

TEXT: Vinyl phosphinic esters (VPE) were synthesized by dehydrochlorination of the corresponding β-chloroethyl phosphinic esters. Catalysts of the ion type ($AlCl_3$, $TiCl_4$, Na) proved ineffective for polymerizing VPE. VPE were block-polymerized at 50°C in N_2 atmosphere and in the presence of radical initiators. The polymerization is accelerated by enlarging the alkyl radical of VPE (methyl ester being an exception). VPE that contain radicals with equal numbers of C atoms in the principal chain polymerize at the same rate. VPE polymers are soluble in dichloro ethane, insoluble in C_6H_6 and CCl_4. Copolymers of VPE with acrylonitrile, vinyl acetate, and vinyl chloride were

Synthesis, polymerization, and...

obtained. In copolymerization, VPE are less reactive than the comonomers mentioned. Polymerization and copolymerization of vinyl phosphinic chloride was also investigated. [Abstracter's note: Complete translation.]

Card 2/2

FEDOROVA, L. S.

Dissertation defended for the degree of Candidate of Chemical Sciences at the Institute of Hetrochemical Synthesis: in 1962:

"Investigation in the Field of Poly- (halo-phenylene)-ethyls."

Vest. Akad. Nauk SSSR. No. 4, Moscow, 1963, pages 119-145

KOLESNIKOV, G.S.; RODIONOVA, Ye.F.; FEDOROVA, L.S.; MEDVED', T.Ya.; KABACHNIK, M.I.

Carbochain polymers and copolymers. Part 43: Synthesis, polymerization, and copolymerization of aromatic esters of vinylphosphinic and α-chlorovinylphosphinic acids. Vysokom. soed. 5 no.1:32-38 Ja '63. (MIRA 16:1)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.
(Phosphinic acid) (Polymerization)

FEDOROVA, L.S.

Nucleotide composition of deoxyribonucleic and ribonucleic acids in an agent of toxic bacteriosis of watermelons. Mikrobiologiia 33 no.6:968-970 N-D '64. (MIRA 18:4)

1. Saratovskiy gosudarstvennyy universitet imeni Chernyshevskogo.

FEDOROVA, L.S.

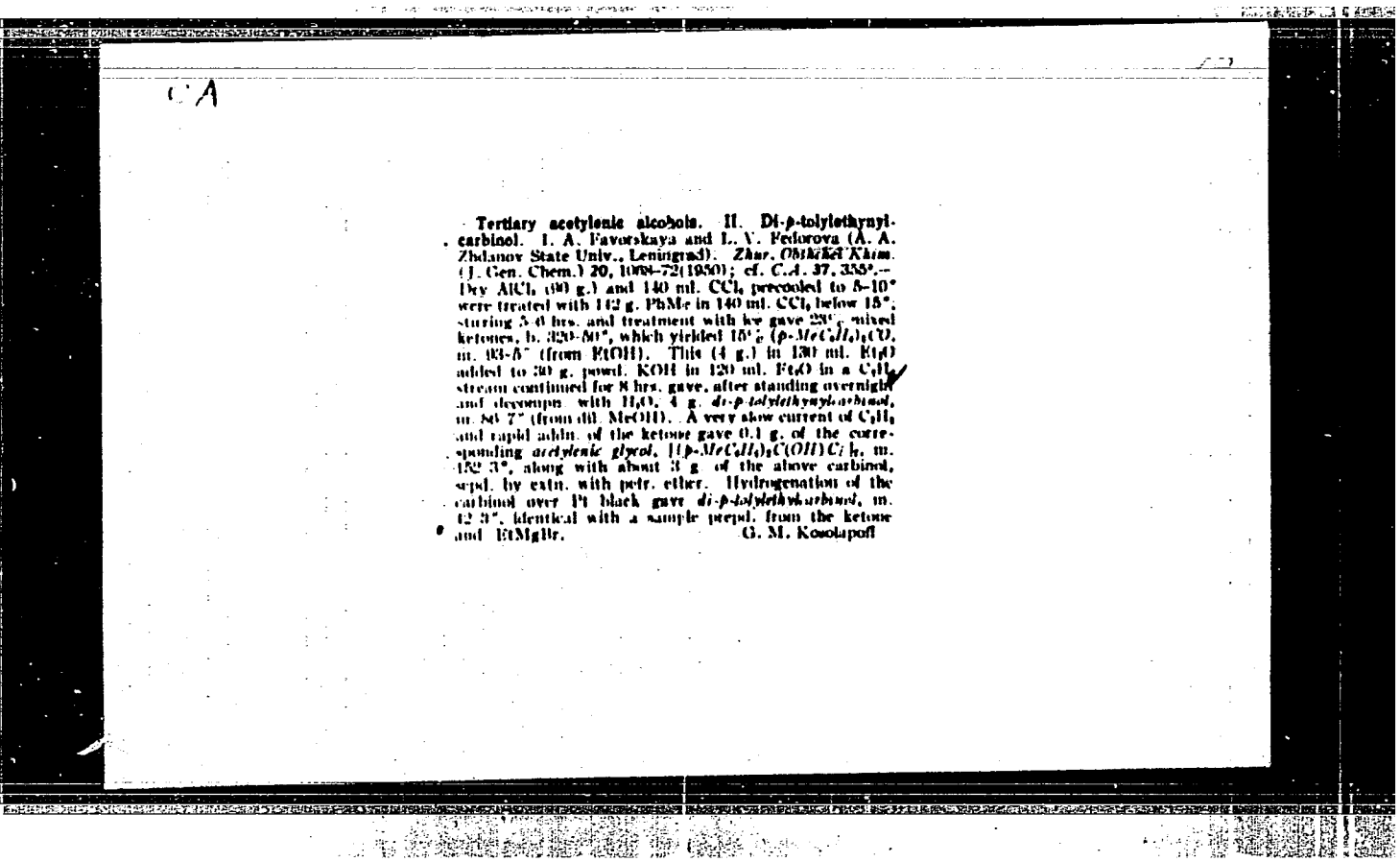
Nucleotide composition of the streptomycin-resistant Erwinia carotovora f. citrullis. Antibiotiki 10 no.9:840-841 S '65. (MIRA 18:9)

1. Kafedra fiziologii rastenii i mikrobiologii (zav. - prof. M.P. Gmutenko), Saratovskogo universiteta imeni N.G.Chernyshevskogo.

FEDOROVA, L.S.

Connection of urease with the bacterial cell. Zhur. mikrobiol., epid. i immun. 42 no.11:23-26 N '65. (MIRA 18:12)

1. Rostovskiy-na-Donu meditsinskiy institut. Submitted July 6, 1965.



CA

Tertiary acetylenic alcohols. II. Di-*p*-tolylethynylcarbinol. I. A. Favorskaya and L. V. Fedorova (A. A. Zhdanov State Univ., Leningrad). *Zhur. Obshchei Khim.* (J. Gen. Chem.) 20, 1068–72(1950); cf. *C.A.* 37, 335°.—Dry $AlCl_3$ (60 g.) and 140 ml. CCl_4 precooled to 5–10° were treated with 142 g. $PhMe$ in 140 ml. CCl_4 below 15°, stirring 5–6 hrs. and treatment with ice gave 23% mixed ketones, b. 320–30°, which yielded 15% $(p\text{-}MeC_6H_4)_2CO$, m. 93–5° (from EtOH). This (4 g.) in 130 ml. Et_2O added to 30 g. powd. KOH in 120 ml. Et_2O in a C_2H_2 stream continued for 8 hrs. gave, after standing overnight and decompn. with H_2O, 4 g. *di-p-tolylethynylcarbinol*, m. 86.7° (from dil. MeOH). A very slow current of C_2H_2 and rapid addn. of the ketone gave 0.1 g. of the corresponding *acetylenic glycol*, $[(p\text{-}MeC_6H_4)_2C(OH)C\equiv]_2$, m. 152.3°, along with about 3 g. of the above carbinol, sepd. by extn. with petr. ether. Hydrogenation of the carbinol over Pt black gave *di-p-tolylethylcarbinol*, m. 42.3°, identical with a sample prepd. from the ketone and $EtMgBr$.

G. M. Kosolapoff

2A 10

1951

Tertiary acetylenic alcohols. III. Dehydration of methyl-n-propylethynylcarbinol and 1,1-diethynylcyclopentanol. I. A. Favorskaya and L. V. Fedorova. *Zhur. Obshchei Khim.* (J. Gen. Chem.) 21, 635-42(1951); cf. *C.A.* 44, 3875e, 9338e.—Addn. of 75 g. MePrCO in Et_2O to 150 g. powd. KOH in 300 ml. Et_2O at 0° in a stream of C_2H_2 over 7 hrs. gave, after standing 24 hrs. and treatment with H_2O, 65% *MePr(HC:C)COH*, b. 135-7° (I), and 8.7 g. *corresponding glycol*. Passage of 40 g. I in CO_2 over unglazed porcelain at 220-30° gave 60-5% hydrocarbon fractions, mostly b. 91-8°. Stirring 30 g. of the fraction b. 95-8° with 8.1 g. HgO, 22 ml. H_2SO_4, 600 ml. H_2O, and 64 ml. 80% $FeSO_4$ gave a *mixt. of ketones*, b_{18} 35-57° (several fractions are recorded), from which *semicarbazones*, $C_8H_{15}ON_3$, m. 146-8° and 172°, were obtained. Ozonolysis of the crude ketones indicated the presence of 30% ketones with a terminal methylene group. The semicarbazones listed above are those of *3-methylenehexanone* and *2-methyl-2-hexen-1-one*, resp. Cyclopentanone (60 g.) with C_2H_2 over 180 g. powd. KOH in 400 ml. Et_2O under the usual conditions gave 92% *ethynylcyclopentanol* (II), m. 26-8°, b. 159-61°, and 3 g. *corresponding glycol*, b.p. unstated. Dehydration of II as above at 240-50° gave 30-40% *hydrocarbon*, b_{100} 60-1°, d_4^{20} 0.8587, n_D^{20} 1.4880, which gives ppts. with NH_3-CuCl soln. and Ag_2O; the hydrocarbon is intensely yellow-green. Its ozonolysis yields HCO_2H, succinic, and glutaric acids, thus confirming the structure *1-cyclopenten-1-ylacetylene*, its hydrogenation over Pt black in EtOH proceeds readily with a characteristically rapid absorption of the 2nd mole of H_2. Heating 4 g. hydrocarbon with 1.2 g. Na in dry xylene to 90-110° and treatment with CO_2 gave 60% *1-cyclopentene-1-propiolic acid*, m. 139-40° (from C_6H_6), forming a poorly sol. *Ag salt*, which ppts. as a *double salt* with $AgNO_3$. The results indicate that dehydration of I yields a mixt. of *3-methylene-1-hexene* and *3-methyl-3-hexen-1-yne*.

G. M. Kosolapoff

FEDOROVA, L.V.

Chem Abs v49
b- 25-54
Organic Chemistry

Cyclopentenylpropiolic acid. I. A. Favorskaya and L. V. Fedorova. *Akad. Nauk S.S.S.R., Inst. Org. Khim., Sintezy Org. Soedinenii, Sbornik* 2, 152–3(1952).—1-Ethynylcyclopentanol is dehydrated by passage through a glass tube with porous porcelain chips in CO_2 at 240–50°, yielding 30–40% *1-ethynylcyclopentene*, b_{20} 60–1°, d_{20} 0.8587, n_D^{20} 1.4880. This (8 g.) is added to 2.4 g. powd. Na in 40–50 ml. xylene and the mixt. is heated to 90° (exothermic reaction); after cooling the suspension of the Na deriv. is treated in situ 20 hrs. with dry CO_2, the product is taken up in H_2O and the aq. soln. is acidified with dil. H_2SO_4 and extd. with Et_2O. Evapn. in CO_2 atm. gave a residue of 60% *1-cyclopenten-1-ylpropiolic acid*, m. 139–40° (from C_6H_6).
G. M. Kosolapoff

1-19-54

FEDOROVA, L.V.

Fedorova, L.V. -- "Homologs of Monovinylacetylene. Reactions of Additions to Hydrocarbons with Mutally Adjacent Double and Triple Bonds." Cnad Chem Sci, Leningrad State U, Leningrad 1953. (REFERATIVNYY ZHURNAL--KHIMIYA, No 1, Jan 54)

Source: SUM 168, 22July 1954

FEDOROVA, L. V.

Chem Abs V48
1-25-54
Organic Chemistry

Homologs of monovinylacetylene. II. Addition of methyl alcohol to 1-ethynylcyclopentene. I. A. Favorskaya and L. V. Fedorova (Leningrad State Univ.). *Zhur. Obshchei Khim.* 23, 47-54(1953); cf. *C.A.* 44, 3875d; 45, 9457g.—*1-Ethynylcyclopentene* (I), b_{10} 57.5-8.0°, d_0 0.8371, d_{20} 0.8590, $n^{20}D$ 1.4891, n'_α 1.48825, n'_β 1.50322, is a colorless liquid after purification through the Cu deriv. Crude product contains some methylfulvene, showing absorption max. at 2800 and 3045 A. Oxidation of such material with $KMnO_4$ gave a small amt. of $(CO_2H)_2$ and 96% HCO_2H, indicating that the fulvene impurity is very low in concn. Red HgO (1.5 g.), 0.7 g. BF_3-Et_2O, and 0.5 ml. MeOH were heated briefly to 50-60° and the mixt. treated with 10 ml. MeOH followed by slow addn. of 24 g. I and 24 g. MeOH with cooling; after 6 hrs. at 20-3° there were obtained: 15.6% *1-(1,1-dimethoxyethyl)cyclopentene* (II), b_{17} 71-2°, d_0 0.9038, d_{20} 0.9467, $n^{20}D$ 1.4503, 13% *1-(1,1-dimethoxyethyl)-2-methoxycyclopentane* (III), b_3 66-7°, $n^{20}D$ 1.4465, d_0 0.9999, d_{20} 0.9840, and 43.7% *dimer* of $C_{12}H_{16}O_2$ (IV), $b_{1.5}$ 138-40°, $n^{20}D$ 1.5150. Hydrogenation of II over Pt black gave Me cyclopentyl ketone. Hydrolysis of III with dil. HCl at room temp. 1.5 hrs. gave *2-acetyl-1-methoxycyclopentane*, b_{10} 131-2°, b_3 114-15°, $n^{20}D$ 1.4485, $d_{19.5}$ 0.9851, d_0 1.0009. Heating III with 10% H_2SO_4 1.5 hrs. gave *1-acetylcyclopentene*, b_{18} 68-70°; *semicarbazone*, m. 204°. IV stirred with EtOH, a little H_2O and HCl at room temp. 3 hrs. gave what appeared to be *7-(1-cyclopentenyl)-tetrahydro-7-methoxy-4(5H)-indanone*, b_1 130-4°, $b_{0.1}$ 94-6°, $n^{20}D$ 1.5190; *semicarbazone*, m. 230-5° (decomp.). Thus, IV appears to be *7-(1-cyclopentenyl)-5,6,7,7a-tetrahydro-4,7-dimethoxyindan*. I (13 g.) added to 0.6 g. H_2SO_4, 0.6 g. $HgSO_4$, and 45 ml. 70% aq. MeOH at 55° and stirred 2.5 hrs. at 50-5° gave 52.8% 1-acetyl-1-cyclopentene, b_{11} 61-1.5°, b_6 54°, d_0 0.9714, $n^{20}D$ 1.4824, d_{19} 0.9586; *semicarbazone*, m. 200-8°. Heating 15 g. α-ethynylcyclopentanol with 0.6 g. H_2SO_4, 0.6 g. $HgSO_4$, and 45 g. 70% aq. MeOH 2 hrs. at 70° gave 71% *1-hydroxy-1-acetylcyclopentane*, b_5 73-3.5°, $n^{20}D$ 1.4646, $n^{20}D$ 1.4642, d_0 1.0487, d_{20} 1.0323; *semi-*

G. M. Kosolapoff

FEDOROVA, L.V.

USSR/Chemistry - Organic chemistry

Card 1/1 Pub. 151 - 11/38

Authors : Favorskaya, I. A., and Fedorova, L. V.

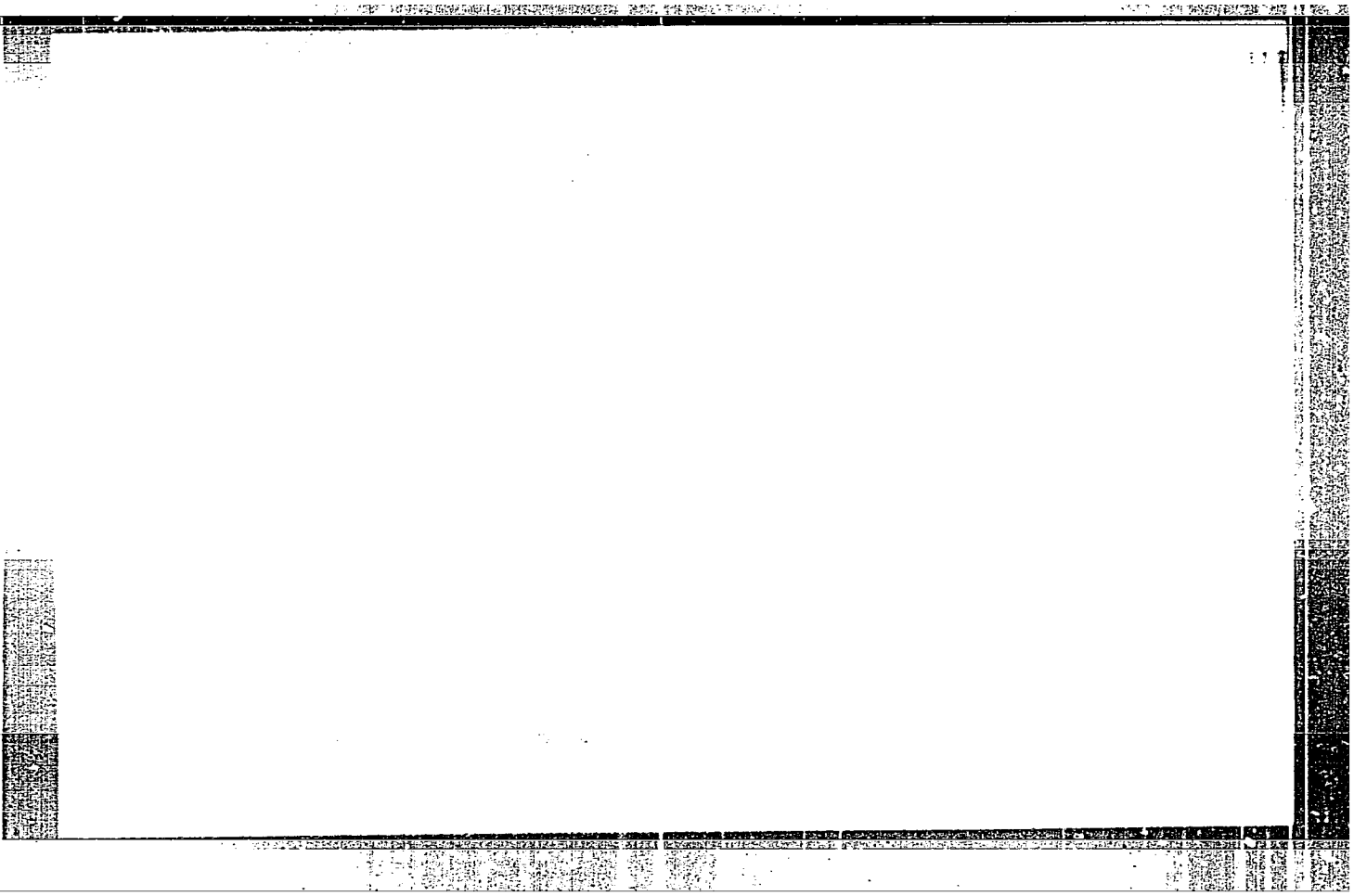
Title : Monovinylacetylene homologues. Part 3.- Cyclic diene ethers

Periodical : Zhur. ob. khim. 24/2, 242-251, Feb 1954

Abstract : The derivation and characteristics of cyclic diene ethers of the general formula $C_nH_{2n-5}OR$ - 1-alpha-methoxyvinyl- Δ' - cyclopentene and 1-alpha-methoxyvinyl- Δ' - cyclohexene -, are described. These compounds were found to be highly reactive dienes and are therefore considered as suitable for the synthesis of numerous poly-cyclic systems. Cyclic diene ethers also offer a suitable medium for the conversion (through diene synthesis) into different bicyclic ketone derivatives of the decalone and hexahydroindanone series and through reaction with quinones into a little known class of polycyclenediones and polycyclenetriones. Twenty references: 12-USSR and 8-USA (1935-1953). Tables; graphs.

Institution : The Order of Lenin-A. A. Zhdanov State University, The A. E. Favorskiy Laboratory, Leningrad

Submitted : August 12, 1953



KUZNETSOV, S.G.; FEDOROVA, L.V.

Molecular association of cholinergic substances. Part 1.
Zhur.ob.khim. 31 no.10:3366-3368 O '61. (MIRA 14:10)

1. Institut toksikologii Akademii meditsinskikh nauk SSSR, Leningrad.
(Parasympanthomimetic substances) (Molecular association)

KUZNETSOV, S.G.; FEDOROVA, L.V.

Molecular association of cholinergic substances. Part 2. Zhur.ob. khim. 31 no.10:3368-3375 O '61. (MIRA 14:10)

1. Institut toksikologii Akademii meditsinskikh nauk SSSR, Leningrad.
(Parasympanthomimetic substances) (Molecular association)

KUZNETSOV, S.G.; FEDOROVA, L.V.

Molecular association of cholinergic substances. Part 3. Zhur.ob. khim. 32 no.7:2354-2357 Jl '62. (MIRA 15:7)

1. Institut toksikologii Ministerstva zdravookhraneniya SSSR, Leningrad.
(Parasympatholytics) (Molecular association)

KUZNETSOV, S.G.; FEDOROVA, L.V.

Molecular association of cholinergic substances. Part 4.
Zhur.ob.khim. 32 no.11:3775-3778 N '62. (MIRA 15:11)
(Parasympathomimetic substances)
(Molecular association)

ARMAND, N.A.; VVEDENSKIY, B.A.; GUSYATINSKIY, I.A.; IGOSHEV, I.P.; KAZAKOV, L.Ya.; KALININ, A.I.; KOLOSOV, M.A.; LEVSHIN, I.P.; LOMAKIN, A.N.; NAZAROVA, L.G.; NEMIROVSKIY, A.S.; PROSIN, A.V.; RYSKIN, E.Ya.; SOKOLOV, A.V.; TARASOV, V.A.; TRASHKOV, P.S.; TIKHOMIROV, Yu.A.; TROITSKIY, V.N.; FEDOROVA, L.V.; CHERNYY, F.B.; SHABEL'NIKOV, A.V.; SHIRKY, R.A.; SHIFRIN, Ya.S.; SHUR, A.A.; YAKOVLEV, O.I.; ZRENBERG, N.Ya., red.

[Long-distance tropospheric propagation of ultrashort radio waves] Dal'nee troposfernoe rasprostranenie ul'trakorotkikh radiovoln. Moskva, Sovetskoe radio, 1965. 414 p. (MIRA 18:9)

FEDOROVA, L. V. DECEASED 1963/1

c. 1957

MEDICINE
(parasites)

see ILC

VOLKOV, M.V., dotsent (Moskva, G-48, Komsomolskiy prosp., d.36, kv.51); FEDOROVA, L.Ye.

Closed method for the treatment of congenital hip dislocations in children by means of a plaster cast-cot. Ortop.,travm.i protez. 22 no.3:25-27 '61. (MIRA 14:4)

1. Iz kliniki detskoy khirurgii i ortopedii (zav. kafedroy - chlen-korrespondent AMN SSSR prof. S.D. Ternovskiy [deceased]) II Moskovskogo gosudarstvennogo meditsinskogo instituta imeni N.I. Pirogova i iz detskoy ortopedicheskoy poliklinik (zav. - A.V. Uvarova) pri bol'nitse im. N.F. Filatova.
(HIP JOINT—DISLOCATION) (PLASTER CASTS, SURGICAL)

FEDOROVA, M., tekhnik-smotritel' zdaniy (Moskva); ROGOV, A.

We answer your questions. Zhil.-kom. khoz. 11 no.12:28 D '61.
(MIRA 16:11)

1. Predsedatel' gruppovogo komiteta Ryazanskogo gorodskogo zhilishchnogo upravleniya (for Rogov).

SKURATOV, A.D., red.. V redaktirovanii prinimali uchastiye: SHKATOV, K.K.; FEDOROVA, M.A.; OVCHINNIKOV, A.I.; SIZOVA, A.I.; SIGEL', M.G.; KARVETSKIY, A.V.; KULICHKIN, A.V.; NIKOLAYEVA, Z.A.; STEPANOVA, V.P.; RYZHOVA, V.K.; MUZHIKOVA, V.N.. YEREMIN, N.I., red.; KHAKHAM, Ya.M., tekhn.red.

[Economy of Ul'yanovsk Province; a concise statistical manual] Narodnoe khoziaistvo Ul'ianovskoi oblasti; kratkii statisticheskii sbornik. Ul'ianovskoe knizhnoe izd-vo, 1958. 199 p. (MIRA 12:3)

1. Ulyanovsk (Province). Oblastnoye statisticheskoye upravleniye. 2. Nachal'nik Statisticheskogo upravleniya Ul'yanovskoy oblasti (for Skuratov).

(Ul'yanovsk Province--Statistics)

SIDNEVA, K.M., kand.tekhn.nauk; FEDOROVA, M.A., mladshiy nauchnyy sotrudnik; POZDNYAKOVA, A.A., inzh.

New dyes for dyeing and printing pure silk fabrics. Tekst.prom. 22 no.11:60-61 N '62. (MIRA 15:11)

1. Sotrudniki Nauchno-issledovatel'skogo instituta organicheskikh poluproduktov i krasiteley (NIIOPiK).
(Dyes and dyeing—Silk)

SIDNEVA, K.M., kand.tekhn.nauk; FEDOROVA, M.A., mladshiy nauchnyy sotrudnik

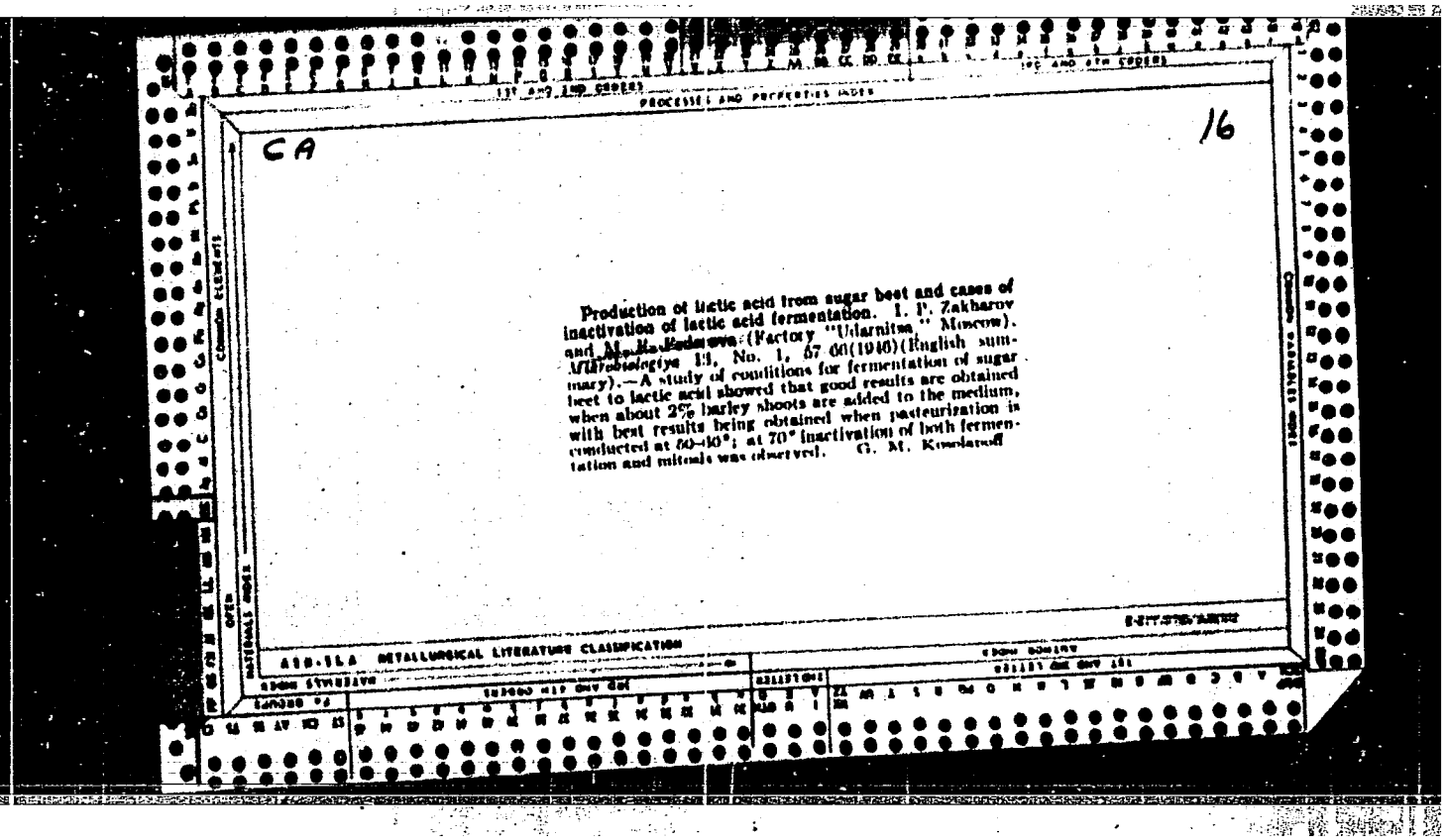
New state standard for testing dye stability to physicochemical action. Tekst.prom. 23 no.8:73-74 Ag '63. (MIRA 16:9)

1. Sotrudniki Nauchno-issledovatel'skogo instituta organicheskikh poluproduktov i krasiteley (NIOPiK).
(Dyes and dyeing--Testing)

RYKOV, G.A.; FEDOROVA, M.D., otv. red.; BORODACH, A.P., red. izd-va

[Geology, mineralogy, petrography, and ore deposits; course outline for secondary special schools for the major "Working ore and placer deposits."]Geologiia, mineralogiia, petrografiia i rudnye mestorozhdeniia; programma dlia srednikh spetsial'nykh uchebnykh zavedenii po spetsial'nosti "Razrabotka rudnykh i rossypnykh mestorozhdenii." Moskva, 1961. 15 p. (MIRA 15:9)

1. Russia (1923- U.S.S.R.)TSentral'nyy metodicheskiy kabinet po srednemu spetsial'nomu obrazovaniyu.
(Geology, Economic--Study and teaching)



CA

16

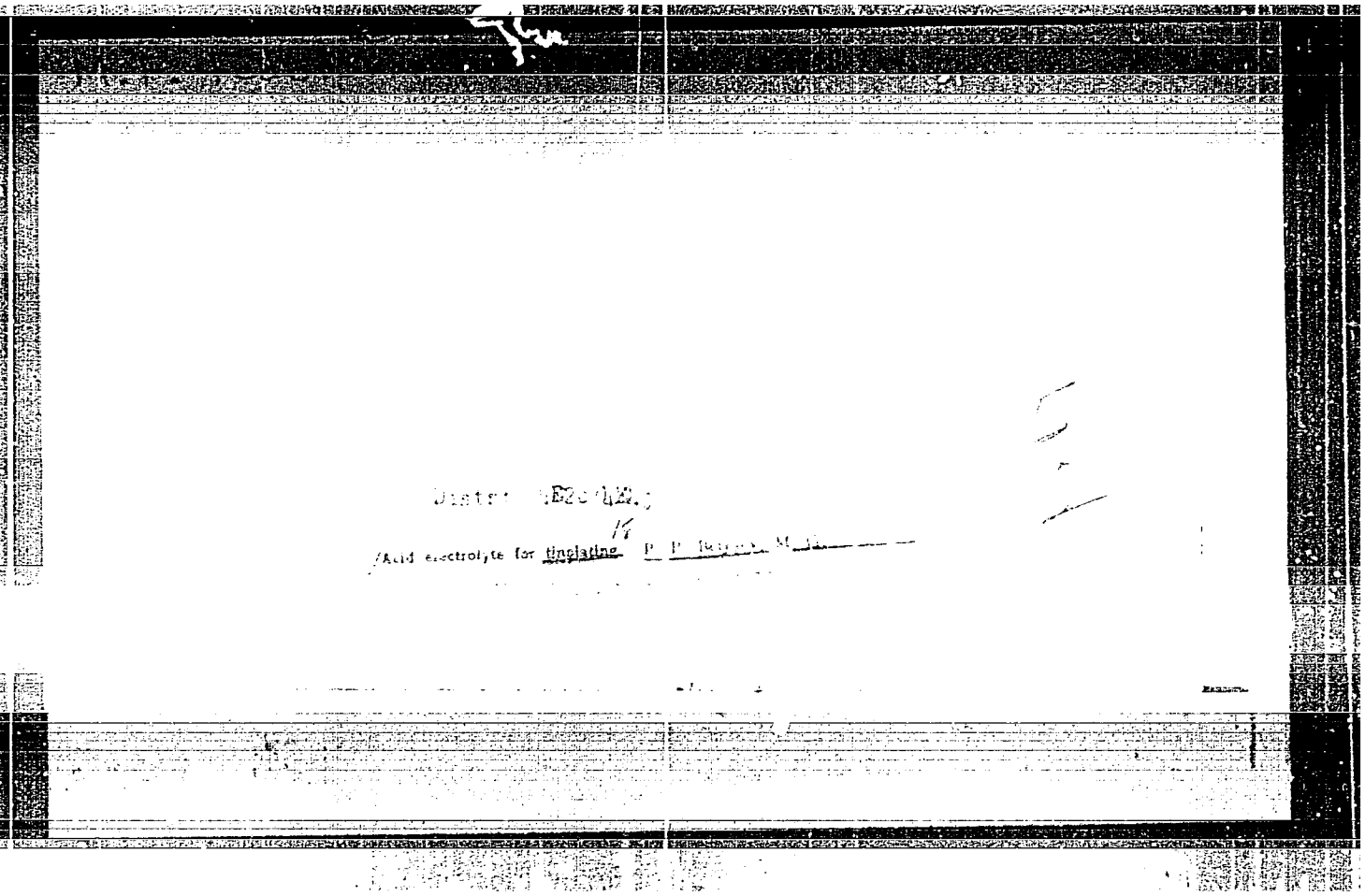
Production of lactic acid from sugar beet and cases of inactivation of lactic acid fermentation. I. P. Zakharov and [redacted] (Factory "Udarnitsa" Moscow). *Mikrobiologiya* 13, No. 1, 57-60(1940)(English summary).—A study of conditions for fermentation of sugar beet to lactic acid showed that good results are obtained when about 2% barley shoots are added to the medium, with best results being obtained when pasteurization is conducted at 50–60°; at 70° inactivation of both fermentation and mitosis was observed. G. M. Kosolapoff

FEDOROVA, M.F.

BELYAYEV, P.P., kandidat khimicheskikh nauk; CHERNENKO, Ye.A., mladshiy nauchnyy sotrudnik; FEDOROVA, M.F., mladshiy nauchnyy sotrudnik.

Tin plating in a sulfate electrolyte. Sbor.st.NIIKHIMMASH no.15:74-90 '54. (MIRA 10:1)

(Tin plating)



/Acid electrolyte for tinplating

SHNEE, Ya.I., doktor tekhn.nauk; FEDOROVA, M.F., kand.tekhn.nauk;
GARKUSHA, A.V., inzh.

Choice of a closed axial gap in a bandaged turbine stage.
Energomashinostroenie 9 no.4:18-22 Ap '63. (MIRA 16:5)
(Turbines)

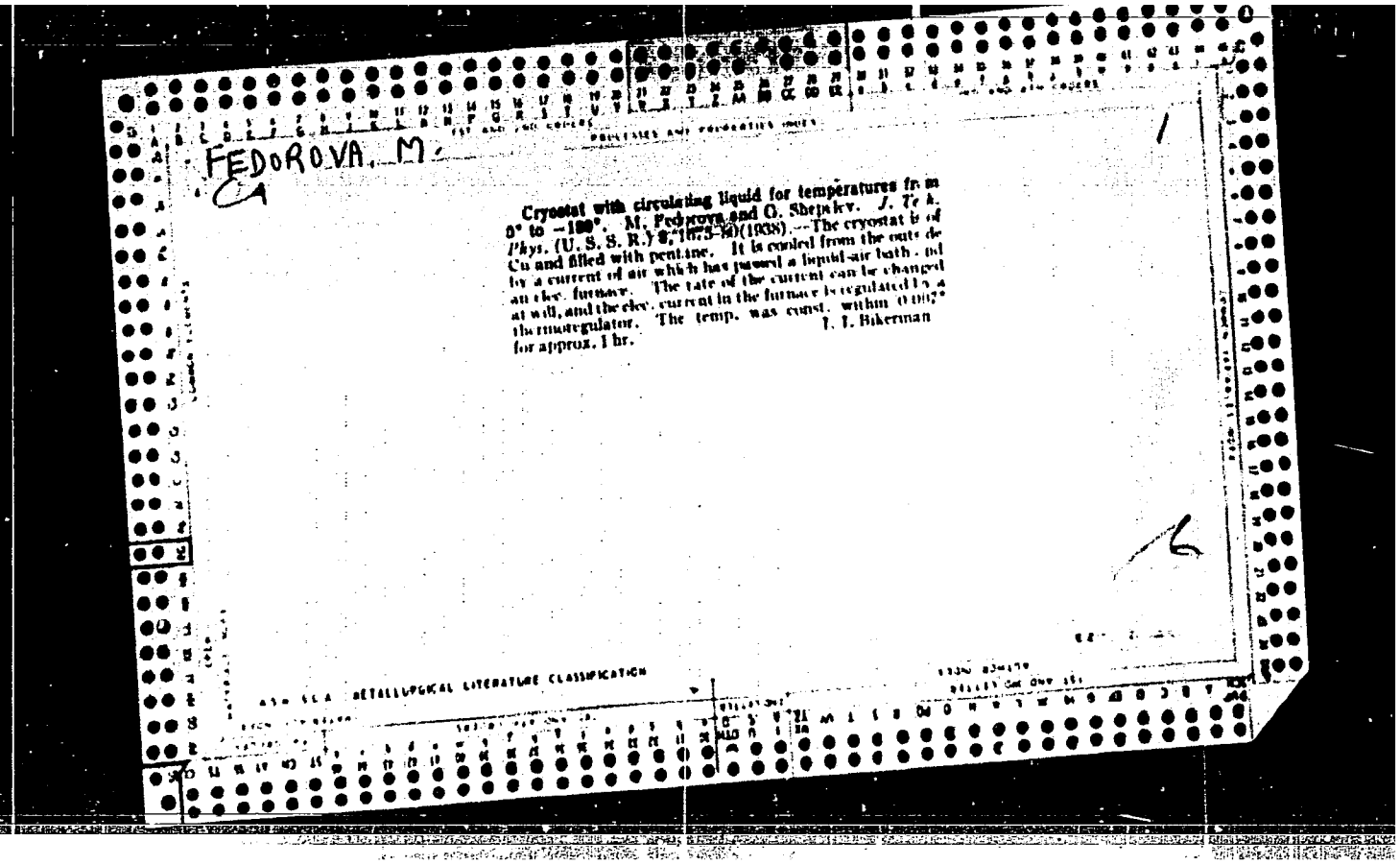
PROCESSES AND PROPERTIES INDEX

CA

2

Binary mixtures of substances melting at low temperatures. M. E. [illegible]. *J. Exptl. Theoret. Phys.* (U. S. S. R.) 8, [illegible]-95 (19[illegible]).—Exptl. data are given in 27 graphs and 6 tables on the diagrams of state of the systems: A-N, N-CH_4, A-O, A-CH_4 at temps. below 90°K. These are neither simple nor typical. A-N, N-CH_4 and A-O are of the peritectic type. Considerable absorption of other gases takes place before the lattice 5 structure is destroyed. For the A-CH_4 mixt. the "point of equal concns." found from the sp.-heat curve lies at ca. 60% CH_4. F. H. Rathmann

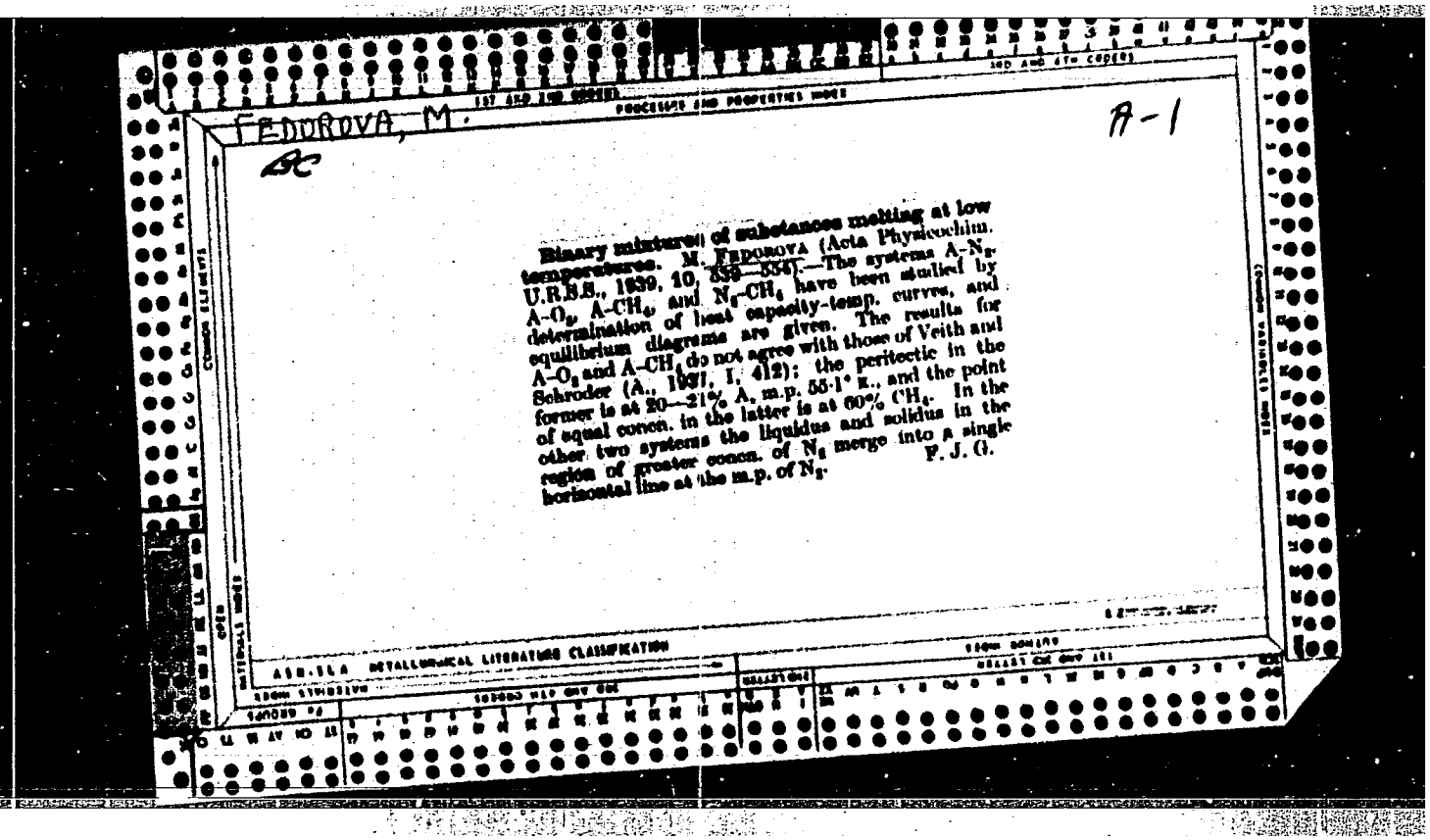
ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

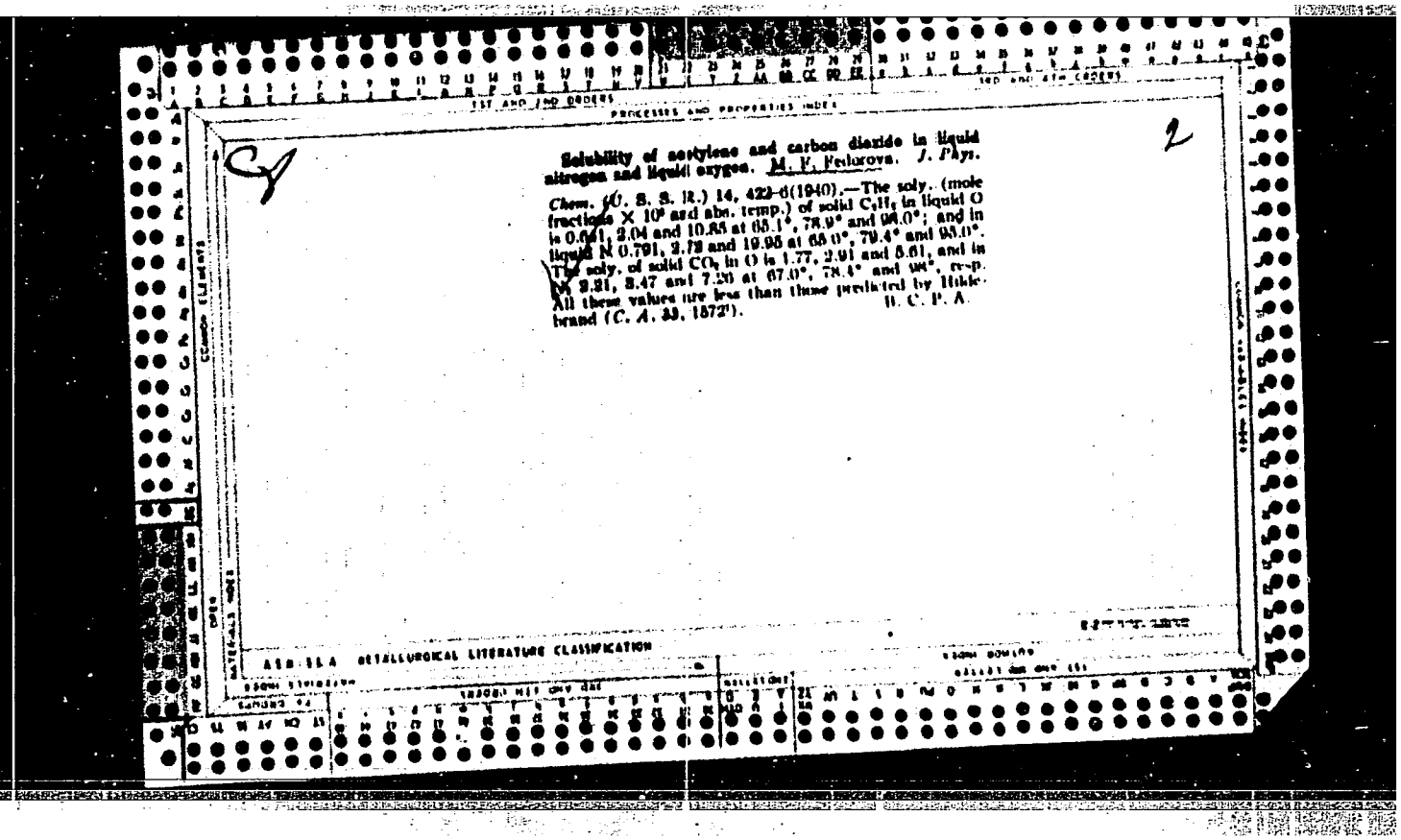


FEDOROVA, M.

Cryostat with circulating liquid for temperatures from 0° to −180°. M. Fedorova and O. Shepelev. *J. Tech. Phys. (U. S. S. R.)* 8, 1073–80 (1938).—The cryostat is of Cu and filled with pentane. It is cooled from the outside by a current of air which has passed a liquid-air bath. Inside another furnace. The rate of the current can be changed at will, and the elec. current in the furnace is regulated by a thermoregulator. The temp. was const. within 0.01° for approx. 1 hr.

I. I. Bikerman





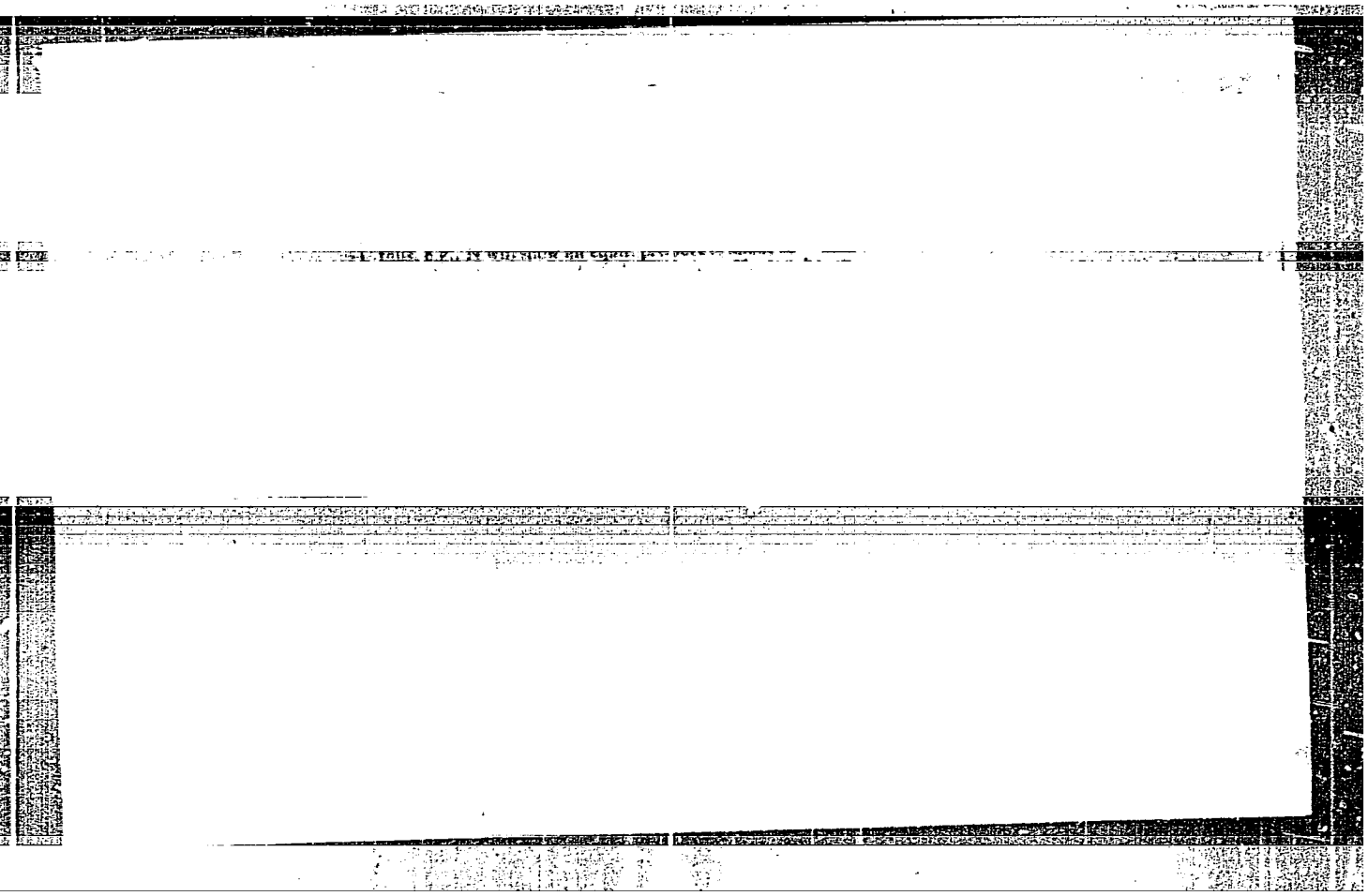
Solubility of acetylene and carbon dioxide in liquid nitrogen and liquid oxygen. M. F. Feiurova. *J. Phys. Chem.* (*J. S. S. R.*) 14, 422-6(1940).—The soly. (mole fractions × 10^5 and abs. temp.) of solid C_2H_2 in liquid O is 0.661, 2.04 and 10.85 at 65.1°, 78.9° and 90.0°; and in liquid N 0.791, 2.78 and 19.95 at 65.0°, 79.4° and 93.0°. The soly. of solid CO_2 in O is 1.77, 2.91 and 5.61, and in N 2.31, 3.47 and 7.20 at 67.0°, 78.4° and 90°, resp. All these values are less than those predicted by Hilde-brand (*C. A.* 33, 1872²). H. C. P. A.

FEDOROVA, M.F.

BOROVIK, Ye.S.; LAZARYEV, M.F.; FEDOROVA, M.F.; TSIN, N.M.

Improvement of diffusion pump properties by employing liquid nitrogen cooled traps. Ukr.fiz.zhur. 2 no.1:87-94 Ja-Mr '57. (MLRA 10:5)

1. Fiziko-tekhnichniy institut AN URSR.
(Vacuum pumps)



LAZAREV, B.G., FEDOROVA, M.F.

Vacuum adsorbtion pump with a high capacity. Zhur. tekh. fiz. 30 no.7:865-867 Jl '60. (MIRA 13:8)

1. Fiziko-tekhnicheskiy institut AN USSR, Khar'kov.
(Pumping machinery)

25034
S/057/61/031/007/017/021
B104/B206

26.2358

AUTHORS: Lazarev, B. G., and Fedorova, M. F.

TITLE: High-vacuum adsorption pump for hydrogen evacuation

PERIODICAL: Zhurnal tekhnicheskoy fiziki, v. 31, no. 7, 1961, 864-866

TEXT: Activated charcoal cooled to liquid hydrogen temperature adsorbs large amounts of gaseous hydrogen. This fact is utilized for the adsorption pumps described here. Two types of these pumps are shown in Figs. 1 and 2, identical parts being designated analogously. The adsorbing elements are cooled by liquid hydrogen flowing in two coaxial cylinders (2). The activated charcoal is placed on the inner walls of the hollow cylinders. In order to prevent too fast hydrogen evaporation, this part is cooled by liquid nitrogen which is inside the hollow space (1). Parts (1) and (2) are made of highly polished copper and the inner side of part (3) is also polished. The valve (4) is connected to the vessel to be evacuated, valve (5) serves for pre-evacuation. The pumps described are started in the following way: The preliminary vacuum pump is switched off after pre-evacuation to 10^{-2} mm Hg, liquid nitrogen is conducted into the

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initial stage and subsequently, liquid hydrogen into the final stage. The vacuum thus obtained lies at $< 10^{-7}$ mm Hg. The pumping rate amounts to 400 l/sec at $8 \cdot 10^{-8}$ mm Hg and up to 900 l/sec at 10^{-5} mm Hg. The efficiency of a pump of type no. 2 as a function of the pressure is graphically shown in Fig. 3 for combined operation (hydrogen and nitrogen) and for operation with nitrogen alone. The pumps described were also successfully used for helium evacuation. For further development of these pumps and determination of their characteristics, it is necessary to study the adsorption isotherms of a number of gases over a wide temperature range at pressures from 10^{-5} to 10^{-8} mm Hg. A report on these studies will be given shortly.
The authors thank V. V. Zolotarev for the construction of the pumps.
There are 3 figures, 1 table, and 4 Soviet-bloc references.

ASSOCIATION: Fiziko-tekhnicheskiy institut AN USSR Khar'kov (Physico-technical Institute, AS UkrSSR, Khar'kov)

SUBMITTED: September 10, 1960

L 9915-63 EWT(1)/EWP(q)/EWT(m)/BDS--AEDC/AFFTC/ASD--JD

ACCESSION NR: AP3000015 S/0057/63/033/005/0585/0591

57
55

AUTHOR: Fedorova, M. F.

TITLE: Isotherms for adsorption of gases on BAU carbon at low temperatures in the 10 sup -9 to 10 sup -2 mm Hg pressure range. 1. Adsorption isotherms for hydrogen and deuterium

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 33, no. 5, 1963, 585-591

TOPIC TAGS: adsorption by activated carbon, sorption pumps, H, D

ABSTRACT: For design and operation of high-vacuum sorption pumps it is essential to know the adsorptive capacity at low temperature of the sorbents used in a wide pressure range. Hitherto the adsorption isotherms for BAU (activated) carbon have been determined only in the range of medium pressures; hence it was deemed desirable to extend the measurements into the region of low pressures. The paper describes the experimental set-up (a cooled double jacket cylinder), the measurement procedure and the results obtained in determining the equilibrium pressure of hydrogen and deuterium over BAU carbon at

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L 9915-63
ACCESSION NR: AP3000015

2

4.2 (H only), 20.4 and 80°K in the pressure range from 10 sup -9 to 10 sup -2 mm Hg. The measurement results are tabulated. The adsorption mechanism is discussed; it is inferred that the absorbed hydrogen molecules for a monomolecular layer. If it were possible to eliminate the apparatus background completely, it might be feasible to substantiate Langmuir's equation according to which adsorption in the region of low pressures should increase linearly. "I take this opportunity to thank Academician (AN Ukrainian SSR) V. G. Lazarev for his interest in the work and discussion of the results." Orig. art. has: 4 figures and 2 tables.

ASSOCIATION: Fiziko-tekhnicheskiy institut AN USSR, Khar'kov (Physico-technical Institute, AN USSR, Khar'kov)

SUBMITTED: 20Apr62 DATE ACQ: 12Jun63 ENCL: 00

SUB CODE: PH NR REF SOV: 005 OTHER: 007

lm/nh
Card 2/2

ALIYEV, A.N.; FEDOROVA, M.F.

Study of the adsorption of gases on activated carbon, silica gel, and synthetic zeolites at low pressures and temperatures. Izv. AN Azerb. SSR. Ser. fiz.-tekh. i mat. nauk no.2:105-108 '64. (MIRA 17:10)

FEDOROVA, M.F.; ALIYEV, A.N.

Adsorption isotherms of gases on silica gel at low temperatures in the pressure range 10^{-3} --10^{-2}mm. of Hg. Zhur. fiz. khim. 38 no.4:989-992 Ap '64. (MIRA 17:6)

FEDOROVA, M.F., ALIYEV, A.N. (Moscow)

Neon and argon adsorption isotherms on BAU carbon and KSM silica gel at low temperatures and pressures. Zhur. fiz. khim. 38 no.12: 2792-2795 D '64. (MIRA 18:2)

1. Fiziko-tekhnicheskiy institut AN UkrSSR.

FEDOROVA, M. I.

Pervaya vsesoyuznaya sel'skokhozyaystvennaya vystavka (First All-Union Agricultural Exhibition) Moskva, Izd-vo Moskovskogo Universiteta, 1953. 113 p. illus., tables. Bibliographical footnotes.

SO: N/5
723
.F2

FEDOROVA, M. I., KULAGIN, S. M., SOKOV, G. P., LULICH, V. A., SHAPIRO, N. I., SUVOROVA, L. G., BORROVSKIY, V. M.,

"Further observations of tick-borne rickettsiosis in the Primorye region." p. 109

Desyatoye soveshchaniye po parazitologicheskim problemam i Prirodnoochagovym boleznyam. 22-29 Oktyabrya 1959 g. (Tenth Conference on Parasitological Problems and Diseases with Natural Foci 22-29 October 1959), Moscow-Leningrad, 1959, Academy of Medical Sciences USSR and Academy of Sciences USSR, No. 1 254pp.

Inst. of Epidemiology and Microbiology, AMS USSR/ Moscow and Vladivostock

FEDOROVA, Mariya Ivanovna; KHROMOVA, Ye.A., red.; YERMAKOV, M.S., tekhn.red.

[Strengthening the communal economy of collective farms and changes in the produce procurement policy during the peace years of the third five-year plan] Ukreplenie obshchestvennogo khoziaistva kolkhozov i izmeneniia v politike zagotovok sel'skokhoziaistvennykh produktov v mirnye gody tret'ei piatiletki; lektsiia. Moskva, Mosk.univ., 1960. 95 p. (MIRA 14:1)

(Collective farms)

WRITE BELOW THIS LINE

ACCESSION NR: AT4044486 S/0000/64/000/000/0029/0034

AUTHOR: Gruzdev, G.T., Fedotova, M.I., Shcherbova, Ye. N.

TITLE: Disruption of the processes of bone marrow regeneration

SOURCE: Vosstanovitel'ny*ye protsessy* pri radiatsionny*kh porazheniyakh (Recovery from radiation injuries); sbornik statey. Moscow, Atomizdat, 1964, 29-34

TOPIC TAGS: radiation sickness, hematopoiesis, bone marrow, bone marrow regeneration, mitosis, chromosome aberration

ABSTRACT: The cellularity, mitotic index and chromosomal aberrations in the bone marrow were studied in male Wistar rats, irradiated with γ-rays from Co^{60} in doses of 150, 400, 750 and 5000 r at an intensity of 290 r/minute. The results showed marked changes in the quality and quantity of actively dividing cells. These changes were especially acute in the first few hours after irradiation. With an increase in the radiation dose, there was an increase in both depression of cell division and the level of chromosomal aberrations. There was an exponential decrease in the number of cells in the bone marrow, starting 7 hours after irradiation with a dose of 5000 r and continuing until death; there was also complete suppression of cell division at that dose. At doses

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L 4280-66 EWT(m)/EWP(j)/T RM

ACCESSION NR: AP5024109 UR/0138/65/000/009/0049/0050
678.044.7:546/547.02

AUTHOR: Galybin, G. M.; Maslova, G. A.; Fedorova, M. I.

TITLE: Chemical composition of triethal

SOURCE: Kauchuk i rezina, no. 9, 1965, 49-50

TOPIC TAGS: rubber chemical, phthalic acid, triethanolamine, vulcanization

ABSTRACT: Triethal is used at the Yaroslavskiy shinnyy zavod (Yaroslavl Tire Plant) as a vulcanization activator replacing a combination of diphenylguanidine and altax. Its chemical composition was studied by determining the hydroxyl groups in organic compounds, determining the carboxyl groups by titrating with alkali in an alcohol medium, and determining nitrogen in organic compounds by the Kjeldahl method. It was found that triethal is a mixture of complex chemical products formed by the reaction of phthalic anhydride with commercial triethanolamine. It consists of esters (about 80%), a crystalline organic salt which has no vulcanizing properties, and excess triethanolamine. The influence of triethal and its components on the properties of inner-tube rubbers was determined. Orig. art. has: 1 table.

Card 1/2

L 4280-66

ACCESSION NR: AP5024109

2

ASSOCIATION: Yaroslavskiy shinnyy zavod (Yaroslavl Tire Plant) 44

SUBMITTED: 00 ENCL: 00 SUB CODE: OC, GC

NO REF SOV: 005 OTHER: 000

Card 2/2 BP

GALYBIN, G.M.; MASLOVA, G.A.; FEDOROVA, M.I.

Chemical composition of triethal. Kauch. i rez. 24 no.9:49-51 '65.
(MIRA 18:10)

1. Yaroslavskiy shinnyy zavod.

ACC NR: AP7002718 (A) SOURCE CODE: UR/0381/66/000/006/0050/0058

AUTHOR: Zaytsev, V. I.; Ruleva, T. Ya.; Fedorova, M. K.

ORG: none

TITLE: Testing the airtightness of welds and the base metal of a structure with GTI-3 and VAGTI-4 halide leak detectors

SOURCE: Defektoskopiya, no. 6, 1966, 50-58

TOPIC TAGS: hermetic seal, weld defect, flaw detection, welded seam, leak finder, halide leak finder, detector/GTI 3 leak finder, VAGTI 4 leak finder

ABSTRACT: The accuracy of the GTI-3 and VAGTI-4 portable halide leak detectors in determining the airtightness of metal structures is analyzed. Optimum conditions and test specifications (extent and rate of evacuation, magnitude of freon overpressure) determined experimentally are given. Orig. art. has: 5 figures and 6 tables. [Translation of authors' abstract] [SP]

SUB CODE: 15/SUBM DATE: 24Jan66/ORIG REF: 008/

Card 1/1 UDC: 620.179.18

RYBAKOVA, L.S.; FEDOROVA, M.K.

Rupture of aneurysms of the cerebral arteries. Kaz. med. zhur. no.6:24-28 N-D '63. (MIRA 17:10)

1. Kafedra nevrologii (zav. - prof. I.I. Rusetskiy) i 1-ya kafedra terapii (zav. - prof. L.M. Rakhlin) Kazanskogo gosudarstvennogo instituta dlya usovershenstvovaniya vrachey imeni Lenina.

S/184/62/000/001/005/009
D041/D113

AUTHORS: Gayduchenko, G.K., and Fedorova, M.M., Engineers

TITLE: Cracking of L062-1 and L62 brass due to corrosion

PERIODICAL: Khimicheskoye mashinostroyeniye, no. 1, 1962, 42-43

TEXT: The authors describe tests with Л062-1 (L062-1) and Л 62 (L62) brass specimens conducted at the "Bol'shevik" zavod (Plant), in order to determine the effect of residual stresses on the tendency of the specimens to crack due to corrosion. For this purpose, 22 mm thick sheets were welded and subsequently bent on rolls. After tests in ammonia vapor, all specimens showed cracks. The effect of various types of mechanical treatment (grinding, planing, etc.) on the cracking of brass due to corrosion was also investigated and analogous results obtained: ammonia vapor caused thin cracks on the surface of all specimens. It was concluded that, in order to eliminate residual stresses, the L62 and L0-62-1 brass specimens should be annealed at 300°C for 2 - 3 hours after all types of mechanical treatment and welding. There are 3 figures and 2 Soviet-block references.

Card 1/1

FEDOROVA, M.N.

CA

7

Determination of heavy metal sulfates in sulfide ores. I. A. Kakovskii and M. N. Fedorova (Ural Polytech. Inst.). *Zavodskaya Lab.* 16, 414-17(1950).—Use of diethyl dithiophosphate as the precipitant of Cu eliminates the interference caused by ZnS, metallic Fe, metal oxides, and carbonates in the conventional extn. of $CuSO_4$ with aq. solns. followed by the detn. of Cu and SO_4. The sample is shaken with 100 to 200 ml. H_2O contg. 0.1-0.2 g. sodium diethyl dithiophosphate, the mixt. is extd. with 15-20 ml. CCl_4, the whole is filtered, and Cu is detd. from the org. layer, Zn from the aq. layer. Detn. of 0.01% Cu is possible.

G. M. Kosolapoff